

Abstract

Percutaneous tissue removal apparatus comprises a flexible drill shaft, a cutting tip mounted on the shaft for placement adjacent a tissue mass for cutting the tissue, means for transmitting motion to the shaft to move the cutting tip against the tissue to cut tissue fragments from the tissue, and means for removing the tissue fragments along the shaft by suction to a location outside the tissue mass while cutting. The apparatus may include means for collecting one or more selected components of the harvested tissue fragments for implantation of the fragments preferably into the body of the patient from whom they were removed. Where the tissue to be cut is bone, a cutting tip is preferably made of a polymeric material which is softer than the cortical portion of the bone, although the cutting tip may be made of a ceramic or a composite material. A second flexible shaft may be provided either within or about the flexible drill shaft. The harvested tissue fragments may be implanted in the donor patient's body.